

We claim:

1. A device for connecting a power supply to a rechargeable device comprising:

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a detection unit adapted to detect power levels of a battery and further adapted to output a first signal when a low power level of the battery is detected; and

10 a power control unit adapted to receive the first signal and further adapted to disconnect circuitry from the battery.

2. The device as in claim 1 wherein the low power level comprises a power level which is insufficient to power the circuitry.
3. The device as in claim 1 wherein the power control unit is further adapted to place the circuitry in a first mode when a handset is in an out-of-cradle state.
- 20 4. The device as in claim 3 wherein the first mode comprises a dormant state.
5. The device as in claim 1 wherein the power control unit is further adapted to place the circuitry in a second mode when a handset is in an in-cradle state.

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6. The device as in claim 5 wherein the second mode comprises an active state.
7. The device as in claim 1 further comprising a reset unit adapted to place the circuitry in a first or second mode.
8. The device as in claim 7 wherein the reset unit is further adapted to place the circuitry in the first mode when a handset is in an out-of-cradle state.
9. The device as in claim 8 wherein the first mode comprises a dormant state.
10. The device as in claim 7 wherein the reset unit is further adapted to place the circuitry in the second mode when a handset is in an in-cradle state.
11. The device as in claim 10 wherein the second mode comprises an active state.
12. The device as in claim 1 wherein the power control unit is further adapted to connect the circuitry to charging contacts when a handset is in an in-cradle state.
13. The device as in claim 12 wherein the power control unit is further adapted to connect the circuitry to a base power supply.

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14. The device as in claim 13 wherein the base power supply comprises a battery.
- 5 15. The device as in claim 13 wherein the power control unit is further adapted to provide regulated power to the circuitry.
16. The device as in claim 12 further comprising a handset battery connected to the charging contacts and adapted to receive a charge from the charging contacts.
17. The device as in claim 1 wherein the detection unit is further adapted to output a second signal when a sufficient power level of the battery is detected and the power control unit is further adapted to receive the second signal and to connect the circuitry to the battery.
18. The device as in claim 17 wherein the sufficient power level comprises a level sufficient to power the circuitry.
19. The device as in claim 17 wherein the power control unit further comprises a first voltage regulator connected to the battery and adapted to receive the second signal and further adapted to connect the circuitry to the battery.

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20. The device as in claim 19 wherein the first voltage regulator is further adapted to supply the circuitry with regulated power.
21. The device as in claim 1 wherein the power control unit further comprises a first voltage regulator connected to the battery.
22. The device as in claim 21 wherein the first voltage regulator is further adapted to receive the first signal and to disconnect the battery from the circuitry.
23. The device as in claim 1 wherein the power control unit further comprises a second voltage regulator connected to charging contacts.
24. The device as in claim 23 wherein the second voltage regulator is further adapted to connect the circuitry to the charging contacts when a handset is in an in-cradle state.
25. The device as in claim 24 wherein the second voltage regulator is further adapted to connect the circuitry to a base power supply.
26. The device as in claim 24 wherein the second voltage regulator is further adapted to provide regulated power to the circuitry.

27. The device as in claim 1 wherein the battery comprises a cordless telephone handset battery.

28. The device as in claim 1 wherein the battery comprises a wireless telephone handset battery.

29. The device as in claim 1 wherein the detection unit is further adapted to output the first signal until a sufficient power level is detected.

30. The device as in claim 1 further comprising an output unit adapted to output an indication of whether the battery has been recharged.

31. A method for connecting a power supply to a rechargeable device comprising:

detecting power levels of a battery;
outputting a first signal when a low power level of the battery is detected;
receiving the first signal; and
disconnecting circuitry from the battery.

32. The method as in claim 31 wherein the low power level comprises a power level which is insufficient to power the circuitry.

33. The method as in claim 31 further comprising placing the circuitry in a first mode when a handset is in an out-of-cradle state.

34. The method as in claim 33 wherein the first mode comprises a dormant state.

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35. The method as in claim 31 further comprising placing the circuitry in a second mode when a handset is in an in-craddle state.

36. The method as in claim 35 wherein the second mode comprises an active state.

37. The method as in claim 31 further comprising placing the circuitry in a first or second mode.

38. The method as in claim 37 further comprising placing the circuitry in the first mode when a handset is in an out-of-craddle state.

39. The method as in claim 38 wherein the first mode comprises a dormant state.

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40. The method as in claim 37 further comprising placing the circuitry in the second mode when a handset is in an in-craddle state.

41. The method as in claim 40 wherein the second mode comprises an active state.

42. The method as in claim 31 further comprising connecting the circuitry to charging contacts when a handset is in an in-cradle state.

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43. The method as in claim 42 wherein further comprising connecting the circuitry to a base power supply.

44. The method as in claim 43 wherein the base power supply comprises a battery.

45. The method as in claim 43 further comprising providing regulated power to the circuitry.

46. The method as in claim 42 further comprising connecting a handset battery to the charging contacts.

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47. The method as in claim 31 further comprising outputting a second signal when a sufficient power level of the battery is detected and connecting the circuitry to the battery.

48. The method as in claim 47 wherein the sufficient power level comprises a level sufficient to power the circuitry.

49. The method as in claim 47 further comprising connecting a first voltage regulator to the battery and connecting the circuitry to the battery.

50. The method as in claim 49 wherein further comprising supplying the circuitry with regulated power from the first voltage regulator.

51. The method as in claim 31 further comprising connecting a first voltage regulator to a handset battery.

52. The method as in claim 51 further comprising disconnecting the handset battery from the circuitry when the first voltage regulator receives the first signal.

53. The method as in claim 31 further comprising connecting a second voltage regulator to charging contacts.

54. The method as in claim 53 further comprising connecting the circuitry to the charging contacts when a handset is in an in-cradle state.

55. The method as in claim 54 further comprising connecting the circuitry to a base power supply.

56. The method as in claim 55 further comprising providing regulated power to the circuitry.

57. The method as in claim 31 wherein the battery comprises a cordless telephone handset battery.

58. The method as in claim 31 wherein the battery comprises a wireless telephone handset battery.

59. The method as in claim 31 further comprising outputting the first signal until a sufficient power level is detected.

60. The method as in claim 31 further comprising outputting an indication of whether the battery is recharged.

61. A device for connecting a power supply to a rechargeable device comprising:

20 detection means for detecting power levels of a battery and for outputting a first signal when a low power level of the battery is detected; and

power control means for receiving the first signal and for disconnecting circuitry from the battery.

62. The device as in claim 61 wherein the low power level comprises a power level which is insufficient to power the circuitry.

5 63. The device as in claim 61 wherein the power control means is further adapted to place the circuitry in a first mode when a handset is in an out-

of-cradle state.

10 64. The device as in claim 63 wherein the first mode comprises a dormant state.

15 65. The device as in claim 61 wherein the power control means is further adapted to place the circuitry in a second mode when a handset is in an in-cradle state.

20 66. The device as in claim 65 wherein the second mode comprises an active state.

67. The device as in claim 61 further comprising reset means for placing the circuitry in a first or second mode.

68. The device as in claim 67 wherein the reset means is further adapted to place the circuitry in the first mode when a handset is in an out-of-cradle state.

69. The device as in claim 68 wherein the first mode comprises a dormant state.

70. The device as in claim 67 wherein the reset means is further adapted to place the circuitry in the second mode when a handset is in an in-cradle state.

71. The device as in claim 70 wherein the second mode comprises an active state.

72. The device as in claim 61 wherein the power control means is further adapted to connect the circuitry to charging contacts when a handset is in an in-cradle state.

73. The device as in claim 72 wherein the power control means is further adapted to connect the circuitry to a base power supply.

74. The device as in claim 73 wherein the base power supply comprises a battery.

75. The device as in claim 73 wherein the power control means is further adapted to provide regulated power to the circuitry.

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76. The device as in claim 72 further comprising a handset battery connected to the charging contacts and adapted to receive a charge from the charging contacts.
77. The device as in claim 61 wherein the detection means is further adapted to output a second signal when a sufficient power level of the battery is detected and the power control means is further adapted to receive the second signal and to connect the circuitry to the battery.
78. The device as in claim 77 wherein the sufficient power level comprises a level sufficient to power the circuitry.
79. The device as in claim 77 wherein the power control means further comprises first voltage regulator means connected to the battery for receiving the second signal and further adapted to connect the circuitry to the battery.
80. The device as in claim 79 wherein the first voltage regulator means is further adapted to supply the circuitry with regulated power.
81. The device as in claim 61 wherein the power control means further comprises first voltage regulator means connected to the battery.

82. The device as in claim 81 wherein the first voltage regulator means is further adapted to receive the first signal and to disconnect the battery from the circuitry.

5 83. The device as in claim 61 wherein the power control means further comprises second voltage regulator means connected to charging contacts.

10 84. The device as in claim 83 wherein the second voltage regulator means is further adapted to connect the circuitry to the charging contacts when a handset is in an in-cradle state.

15 85. The device as in claim 84 wherein the second voltage regulator means is further adapted to connect the circuitry to a base power supply.

86. The device as in claim 84 wherein the second voltage regulator means is further adapted to provide regulated power to the circuitry.

87. The device as in claim 61 wherein the battery comprises a cordless telephone handset battery.

20 88. The device as in claim 61 wherein the battery comprises a wireless telephone handset battery.

89. The device as in claim 61 wherein the detection means is further adapted to output the first signal until a sufficient power level is detected..

90. The device as in claim 61 further comprising output means for outputting an indication of whether the battery has been recharged.